



UNITED STATES PATENT AND TRADEMARK OFFICE

Commissioner for Patents
United States Patent and Trademark Office
P.O. Box 1450
Alexandria, VA 22313-1450
www.uspto.gov

**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 10/797,791
Filing Date: March 10, 2004
Appellant(s): DUERBAUM ET AL.

Eric M. Bram
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 27 May 2008 appealing from the Office action mailed 28 December 2007.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

No amendment after final has been filed.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

5,363,287	Liu et al.	11,1994
5,777,859	Racts, Hubert	7-1998
4,695,934	Steigerwald et al.	9-1987
5,077,486	Marson et al.	12-1991

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action: A person shall be entitled to a patent unless - (b) The invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States. 4. Claims 9 and 16 are rejected under 35 U.S.C. 102(b) as being anticipated by Liu et al. (U.S. Patent # 5,363,287). Liu et al. disclose the claimed subject matters a resonant converter (figure 1), including a multiple output (figure 1, item -12V, +12V, +5V), a transformer with a primary winding (figure 1, item 12), and at least two secondary windings (figure 1, item T1 with three different windings) and the different winding direction and different ratio are at the top transformer and middle transformer, since the conventional "." Represent the different winding direction (one dot at bottom of coil, the other "." at top). The different ratio of output voltage (12, -12) to number of turns (turns are same for both (n), since voltage magnitude is the same (12)) is different since one ratio positive (12/n), the other is negative (-12/n) and at least two of the secondary windings being electrically separated (figure 1).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 5 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Liu et al. (U.S. Patent # 5,363,287) in combination with Raets (U.S. Patent # 5,777,859) Liu et al. disclose the claimed subject matters as explained in the previous office action (repeated here below for reference), except the utilization of the technique for an inverter in series with the capacitive element, the external inductive element and the primary winding of the transformer. Raets teaches the utilization of the similar technique for an inverter in series with the capacitive element, the external inductive element and the primary winding of the transformer (figure 1, item 6-10). It would have been obvious one having an ordinary skill in the art at the time the invention was made to modify Liu et al.'s converter by utilizing the technique taught by Raets. Further Liu et al. discloses the claimed subject matters except that an inverter in series with the capacitive element, the external inductive element and the primary winding of the transformer instead of inverter for, Liu et al. shows that DC-AC-DC converter equivalent is an structure known in the art, therefore, because these two topology were art-recognized equivalents at the time the invention was made, one of ordinary skill in the art would have found it obvious to substitute inverter for converter.

7. Claims 11-13, 17-18, 25-27 and 32-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Liu et al. (U.S. Patent # 5,363,287) in combination with Raets (U.S. Patent # 5,777,859) and further in combination with Steigerwald et al. (U.S. Patent # 4,695,934) and Marson et al. (U.S. patent # 5,077,486).

Liu et al. in combination with Raets disclose the claimed subject matters as explained in the claims 5,9 and 31, above, except the utilization of the technique for the at least two of the secondary windings being electrically separated, the multiple outputs a measuring signal for regulating an output voltage of the inverter~ the secondary windings being electrically connected one another, secondary winding connected to a ground potential and a chopped DC voltage signal to be coupled to primary windings (the similar limitation taught by Steigerwald et al. and Marson et al. as explained in the previous office action and the previous office action is repeated here below for reference), It would have been obvious one having an ordinary skill in the art at the time Liu et al. in combination with Raets' inverter circuit by technique taught by Steigerwald et al. and Marson et al. for the purpose of increasing the efficiency of the power supply, reducing cost and increasing reliability.

8. Claims 23-24 and 28-30 are rejected under 35 U.S.C. 103 (a) as being unpatentable over Liu et al. (U.S. Patent # 5,363,287) in combinations with Steigerwald et al. (U.S. Patent # 4,695,934) and further in combination with Marson et al. (U.S. patent # 5,077,486).

Liu et al. disclose the claimed subject matters as explained in the claims 9 and 16, above, except the utilization of the technique for the multiple outputs a measuring signal for regulating an output voltage of the inverter, the secondary windings being electrically connected one

another, secondary winding connected to a ground potential and a chopped DC voltage signal to be coupled to primary windings. Steigerwald et al. teaches the utilization of the similar technique for the multiple outputs a measuring signal for regulating an output voltage of the inverter (column 3, line 55-65) (claim 28), the secondary windings being electrically connected one another (figure 1, item 30-39) (claim 23), a secondary winding connected to a ground potential (figure 1, item 40 connected to ground potential)(claim 24) and Marson et al. teaches the utilization of the similar technique for a chopped DC voltage signal to be coupled to primary windings (column 3-4, line 1-65) (claim 29-30). It would have been obvious one having an ordinary skill in the art at the time the invention was made to modify Liu et al.'s power supply by utilizing the technique taught by Stegerwald et al. and Marson et al. for the purpose of increasing the efficiency of the power supply and to meet cost effectiveness and reliability. In regards to claim 12, the secondary winding being electrically separated from one another (Liu et al. figure 1).

Double Patenting

9. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir.1998); *In re Goodman*, 11 F.3d 1046, 29

USPQ2d 2010 (Fed. Cir. 1993); In re Longi, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); In re Van Omum, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); In re Vogel, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and In re Thonngton, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

10. Claims 5, 9, 11-13, 16-18 and 23-34 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-19 of U.S. Patent No. 6,721,191. Although the conflicting claims are not identical, they are not patentably distinct from each other because Both the sets of claims directed toward a resonant converter comprising: multiple converter outputs, including a transformer" having a primary winding and at least two secondary windings wherein the resonant frequency of the resonant converter determined by the main inductance and a leakage inductance of the transformer and by a capacitive element.

(10) Response to Argument

Appellant 's arguments that the Examiner has failed to offer any evidence in support of whatever official notice the examiner has taken for claim 9. The examiner respectively disagrees because the final office action mailed on 28 December 2007 does not include an official notice taken in the 102 rejection. With respect to the Official notice mentioned in the argument of the Final rejection was to clarify the 102 rejection. Appellant was challenging a basic electric circuit operation and examiner was attempting to clarify that is elementary knowledge that if the output voltage of a plurality secondary winding have different output voltage, it means the number of turns are different. Liu et al. reference did not think it was necessary to spell out that

the plurality secondary winding have different number of turns. One of ordinary skill in the art would have found that to be inherent in the applied art of Liu et al. (see column 6, line 10-30). Further in regards to Appellant's argument that Liu et al. just does not disclose a resonant. The examiner fails to understand how appellant is challenging not only the circuit diagram but what is also spelled out in black and white starting with Liu et al.'s title "LOW NOISE MULTI-OUTPUT AND MULTI-**RESONANT** FORWARD CONVERTER FOR TELEVISION POWER SUPPLIES". Fig. 1 of Liu et al. clearly discloses the secondary windings having a different winding direction with dot representation. In response to appellant's arguments that the examiner fail to provide reason to combine, the examiner recognizes that references cannot be arbitrarily combined and that there must be some reason why one skilled in the art would be motivated to make the proposed combination of primary and secondary references. In re Nomiya, 184 USPQ 607 (CCPA 1975). However there is no requirement that a motivation to make the modification expressly articulated. The test for combining references is what the combination of disclosures taken as a whole would suggest to one of ordinary skill in the art. In re McLaughlin, 170 USPQ 209(CCPA1971). Reference are evaluated by what they suggest to one verse in the art, rather than by their specific disclosure. In regards to claim 31, Appellant's argument with respect to applied art of Raets does not disclose multiple output, the examiner respectively disagrees because Raets's figure 1 clearly discloses three output (VETH, V1,V2), further in combinations of Steigerwald et al. also teaches the utilization technique for a measured output signal to control an output voltage.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/RAJNIKANT B. PATEL/

Primary Examiner, Art Unit 2838

Conferees:

David Blum/David S Blum/

TQAS Appeal Specialist, TC 2800

/Akm Enayet Ullah/

Supervisory Patent Examiner, Art Unit 2838